CIAOER RP 75-23 China's Offshore Oil Exploration Aug 75

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No Foreign Dissem



China's Offshore Oil Exploration

Secret ER RP 75-23 August 1975

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CHINA'S OFFSHORE OIL EXPLORATION

KEY FINDINGS

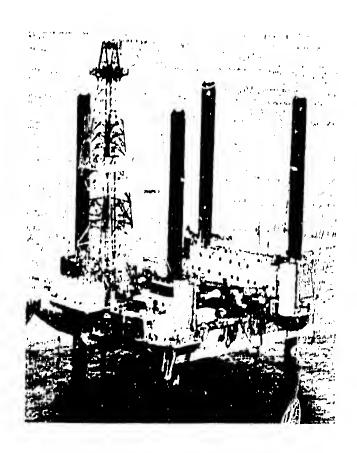
- 1. Recent Chinese purchases of offshore oil drilling equipment indicate Peking plans to accelerate development of its offshore petroleum resources.
- 2. Early this year, Chinese representatives, acting through the China National Machinery Import-Export Corporation (CNMIEC), began payments on two offshore jack-up drilling rigs purchased from Robin Loh Enterprises, a Singapore-based firm. More recently, the Chinese exercised their option to buy two additional rigs from Robin Loh, while maintaining an option to purchase as many as four more. CNMIEC reportedly also has reached an agreement to buy two new rigs from Mitsubishi and is negotiating with the German firm Blohm and Voss to purchase as many as six deep-water, semisubmersible drilling rigs. Although preliminary negotiations between the Chinese and several US firms for offshore equipment have fallen through, China is interested in leasing the highly sophisticated Glomar Java Sea drilling ship from the Atlantic Richfield Company.
- 3. The Chinese are also actively seekin offshore support equipment. A deal with the Weco Shipping Company of Denmark will provide Peking eight new offshore supply vessels; at least two have already been delivered. Last year, the first of five rig supply vessels on order from Japan was also delivered. In addition, US seismic equipment was acquired from the Geo Space Corporation, and a seismic ship for geophysical survey operations was purchased from France by China's Ministry of Fuel and Chemical Industries.
- 4. These purchases will vastly improve China's small, primitive inventory of offshore drilling equipment. Even so, offshore oil exploitation probably will be limited for several years, contrasting with booming onshore oil production, now growing at greater than 20% annually. The drilling equipment already contracted for probably will not be available until mid-1976, and a massive infusion of equipment necessary for producing offshore oil on a large scale is precluded by the current worldwide equipment shortage.

Note. Comments and queries regarding this publication are welcome. They may be directed to of the Office of Economic Research, Code 143, Extension 5868.

DISCUSSION

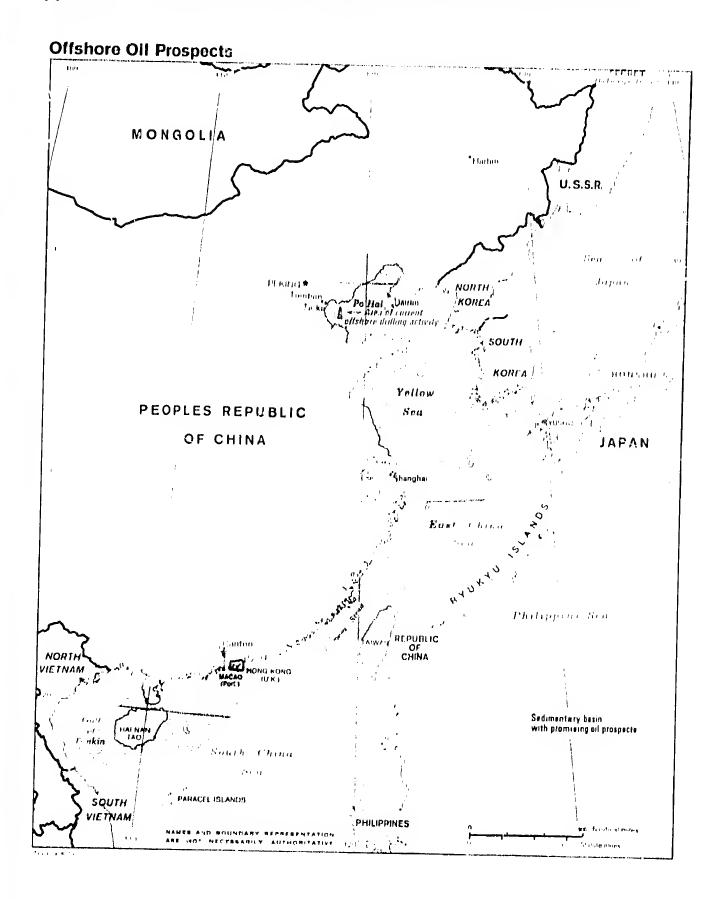
Current Use of Offshore Drilling Equipment

5. Only three mobile oil drilling platforms are known to be in use off the coast of China, along with at least as many fixed platforms. The only imported mobile platform is the Fuff, a self-elevating jack-up rig, built by Mitsubishi in 1969 and sold to CNMIEC by the Japan Drilling Company for US \$8.7 million in late 1972. The Fuji can operate in 175 feet of water and drill to 15,000 feet. Since its delivery in April 1973, the Fuji has been used in the Po Hai Bay off the northern China coast, where virtually all of China's offshore oil drilling efforts have been concentrated, The Po Hai Bay, less than 150 fect deep in most places, contains extensions of some of North China's richest onshore oilfields.



Fuji self-elevating, jack-up drilling rig.

- 6. The first Chinese-made offshore rig, the *Po Hai No. 1*, was built in 1972 at the Lu-ta (Dairen) Shipyard. Except for lacking a helicopter pad, the *Po Hai No. 1* is a near copy of the *Fuji*.
- 7. The stationary drilling platforms assembled by the Chinese operate in the shallower parts of the Po Hai Bay, primarily just southeast of Ta-ku. At least two fixed platforms have clearly been established for production purposes. One of these rigs, equipped with derrick and flare tower, has undergone frequent enlargement and improvement since first observed in 1971. Both rigs recently were seen about 25 miles southeast of Ta-ku and 10 miles offshore, attended by several support platforms. Actual output from offshore wells, however, is only nominal. The

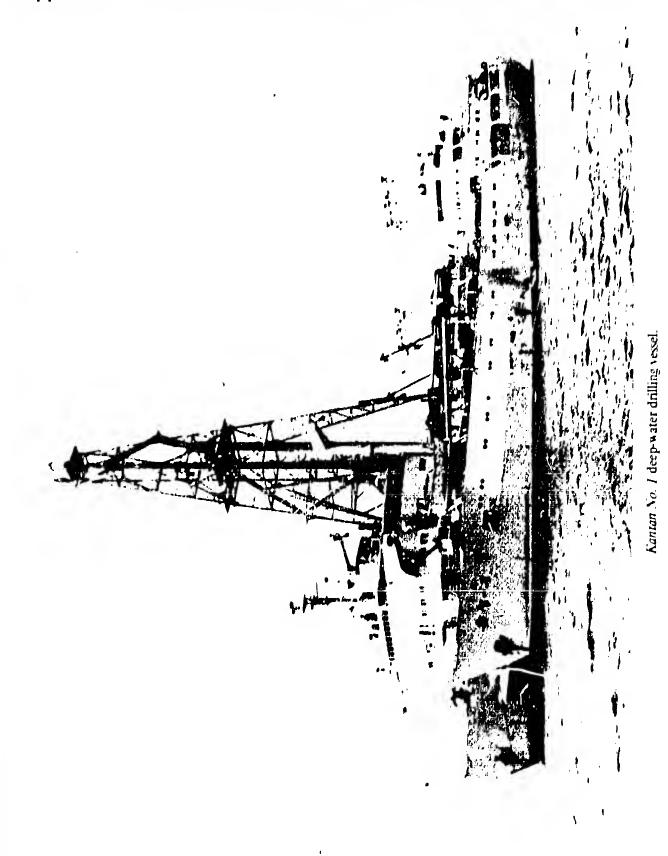


Chinese apparently lawe been more successful along the nearby shore, where causeways and landfills have enabled them to use land rigs.

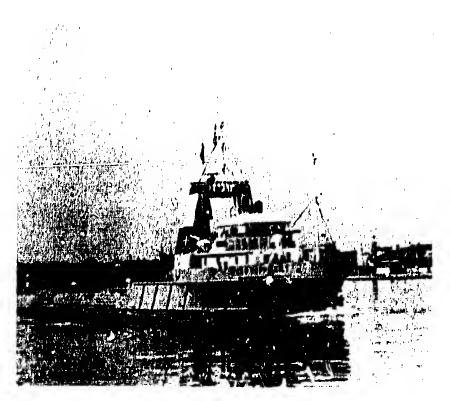
8. The Chinese also have a deep-water, catamaran drill ship, Kantan No. 1, which they assembled in 1973 in the Hinting (Shanghai) Shipyard. The twin linits of the Kantan No. 1, reportedly old British Liberty ships, were joined together by a platform and rig built in Tientsin. One observer estimated that the Kantan No. 1 probably could operate at water depths up to 800 feet. Last December, the Chinese announced they were using the ship to explore for oil in the southern part of the Yellow Sea.

Recent Purchases and Contract Negotiations

- 9. The jack-up rigs being purchased from the Singapore firm Robin Loh are best suited for use in the Po Hai Bay and in other areas close to the coast, suggesting they will be used to extend present drilling operations into only slightly deeper waters. The first two rigs purchased are *Robray 300* models, capable of working in 300 feet of water and drilling to 20,000 feet. The rigs will cost about \$30 million each, which reportedly includes the price of some American-made drilling equipment. They are now scheduled for mid-1976 delivery. The Chinese have already made payments this year in excess of \$20 million. The two additional rigs reportedly on order from Robin Loh will be selected from jack-up rigs currently under construction in Singapore, or from two rigs being built in Japan by Hitachi for a Pobin Loh subsidiary.
- 10. Information on a possible deal between China and Japan for offshore oil drilling equipment is sketchy. According to one press report, the Chinese ordered a \$8.4 million jack-up rig from Mitsubishi in 1974 and have approached the firm about constructing two "giant" offshore drilling rigs. A Japanese businessman reported that Mitsubishi received a Chinese order for offshore oil drilling equipment valued at about \$85 million in 1973, which included three offshore drilling rigs. Other reports indicate that Mitsubishi, dealing with CNMIEC, submitted a complete quotation for a Makuryn No. 2 type of semisubmersible drilling platform. The Hakuryu No. 2 built by Mitsubishi in 1971 can operate in water up to 650 feel deep and can drill to 29,500 feet.
- 11. The Chinese are also reportedly negotiating with Mitsul. In May the Chinese requested further details on the AKER II.3, a Norweglan-designed semisubmersible drilling rig. At about the same time, the Chinese reportedly turned down a Norwegian offer for an AKER II.3 built in Hong Kong.



- 12. The potentially largest deal for offshore equipment is now under negotiation with Biolin and Voss of West Germany. Reportedly, China may order six fully equipped *Scarabeo*-type offshore semisubmensible drilling rigs, each valued at about \$37 million. The *Scarabeo*, a deep-water, self-propelled platform, can drill to 30,000 feet in water 1,000 feet deep. The *Scarabeo* is equipped with a dervick skidding system that enables it to drill six wells from a fixed position.
- 13. Although the Chluese often allow important confract negotiations to proceed to an advanced stage merely to gain technical information on equipment, two knowledgeable sources believe a final agreement with Biolina and Voss will soon be reached. The Chinese reportedly are asking for delivery of the first rig by the end of 1977 and for one every six months thereafter.
- 14. The Blohm and Voss semisubmersibles would considerably apprade Clam's deep-water oil exploration capability. Acquisition of the semisubmersibles probably would signal Clam's intention to extend drilling operations beyond the shallow Po Hal Bay.



Dunish built supply vessel.

15. Paralleling their growing interest in offshore drilling equipment, the Chinese are continuing efforts to augment their oil rig supply and support equipment. US selsmographs used in locating oil-bearing structures were recently acquired from the Geo Space Corporation, and in late 1974 Chinese geophysicists were sent to Texas to be trained in their use. Also in 1974, there were deliveres of a \$7 million seismic survey ship purchased from France, a \$2 million oil rig supply vessel from Japan, and two oil rig supply vessels valued at nearly \$20 million each from Denmark. At least six more offshore supply vessels are scheduled to be delivered from Denmark's Weeo Shipping Company and four more from Japan. These purchases underscore the seriousness of China's negotiations for more offshore drilling equipment and the high priority China has assigned to offshore petroleum development.